

**In the Abstract:**

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**ABSTRACT**

A non-intrusive speech quality assessment system. A method and apparatus for training a quality assessment tool in which a database comprising a plurality of samples, each with an associated mean opinion score, is divided into a plurality of distortion sets of samples according to a distortion criterion; and a distortion specific assessment handler for each distortion set is trained, such that a fit between a distortion specific quality measure generated from a distortion specific plurality of parameters for a sample and the mean opinion score associated with said sample is optimised. A method and apparatus for assessing speech quality in a telecommunications network in which a dominant distortion type is determined for a sample; a distortion specific plurality of parameters are combined to provide a distortion specific quality measure for each sample; and a quality measure is generated in dependence upon the distortion specific quality measure.